RESEARCH, DEVELOPMENT and TECHNOLOGY TRANSFER
QUARTERLY PROGRESS REPORT (QPR)

Wisconsin Department of Transportation (WisDOT)
DT1241 5/2014

INSTRUCTIONS:
Research principal investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT Research Program Category	**Report Period** *(enter year and check which quarter)*
☐ Policy Research ☒ Wisconsin Highway Research Program ☐ Other: _____	Year: 2014 ☐ Quarter 1 (Jan 1 – Mar 31) ☐ Quarter 2 (Apr 1 – Jun 30) ☐ Quarter 3 (Jul 1 – Sep 30) ☒ Quarter 4 (Oct 1 – Dec 31)

Project Title	WisDOT Project ID
Development and Implementation of the Next Generation Bridge Management System for Wisconsin - Phase 2	0092-13-06

Principal Investigator Name	Project Oversight Committee Chair Name	Project Start Date (m/d/yyyy)
Jose Aldayuz	Shiv Gupta	4/19/2013
(Area Code) Telephone Number	(Area Code) Telephone Number	Original End Date (m/d/yyyy)
703-317-6522	(608) 266-5164	3/31/2015
Email Address	Email Address	**Current End Date** (m/d/yyyy)
jaldayuz@mbakerintl.com	Shiv.Gupta@dot.wi.gov	12/31/2015

Project Schedule Status *(check one)*
☐ On Schedule ☒ On Revised Schedule ☐ Ahead of Schedule ☐ Behind Schedule

Project Budget Status

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
$73,997.17	$16,187.38	$16,187.38	22%	22%

Project Description
The objective of Phase II of this research was substantially changed after learning about the proposed schedule for the release of AASHTOWare BrM 5.2.3. The Project Oversight Committee directed Baker to prepare a work scope to obtain at a minimum the following deliverables under four distinct tasks:

1. WisDOT specific Cost Data and Protocols for updating and maintaining the element costs information
2. WisDOT specific Element Deterioration Models
3. WisDOT specific Utility Functions
4. WisDOT specific Risk Assessment Criteria

Task 1: Develop WisDOT specific Cost Data and Protocols for updating and maintaining the element costs information

Under this Task, Baker will collect and document the cost models for 25 elements depicted below. The values associated with the cost model of these elements will be collected via elicitation process from the WisDOT region Bridge Maintenance Engineers.

Direct cost for the following actions will be collected:

- Protect
- Repair
- Rehabilitate
- Replace

The cost elicitation process will be conducted using the WisDOT SharePoint Collaboration Tool

The deliverables for this task are:

- A Microsoft Excel Workbook with 25 survey forms to be send to the region

- An Excel Workbook with the results of the elicitation process for the 25 elements depicted in this document
- A document summarizing the protocols to obtain the cost information to further update BrM 5.2.3

User costs and traffic maintenance costs will be needed by BrM 5.2.3 modeling and will need to be collected under a separate effort.

Schedule
The work in Task 1 will be completed within 7 weeks of WisDOT providing a notice to proceed. The elicitation summary will be compiled with the surveys returned by the Regions within 4 weeks of receiving the survey request.

Task 2: Develop WisDOT specific Element Deterioration Models

This task involves activities related to the WisDOT specific element deterioration models as well as documenting these values in a MS Excel Workbook.

Approach:
Under this Task, Baker will document in excel deterioration models to be calibrated when the version of AASHTOWare BrM 5.2.3 is released. The same 25 elements selected for Task 1 will be used in this task. Baker will review up to four deterioration models developed by agencies with same climate and environments. Then it will recommend deterioration models to be calibrated with BrM 5.2.3 when released. Truck traffic and winter maintenance practices are big factors in deterioration, it is envisioned that the calibration will yield a set of deterioration models for the urban Regions and a different one for the rural Regions. The calibration is not part of this scope of work and signifies revising the deterioration models in a manner that they would forecast deterioration rates close to those observed by practitioners.

Deliverable

- An Excel Workbook with suggested deterioration models for the 25 elements selected by WisDOT
- A document summarizing the protocols to obtain the deterioration models to further update BrM 5.2.3

Schedule
The work in Task 2 will be completed within 7 weeks after Task 1 is complete

Progress This Quarter *(includes meetings, work plan status, contract status, significant progress, etc.)*
- Various conference calls with POC Chair and a conference call with entire POC
- First Draft Workbook with cost elicitation for the 25 elements selected by the POC and 3 elements added at no additional cost was delivered on December 3, 2014
- Initial work for Task 2 was performed

Anticipated Work Next Quarter
- Complete Task 1 and continue work on Task 2

Circumstances Affecting Project or Budget
POC cooperation/direction is positively affecting the Project
WHRP has yet to pay for a sub-consultant invoice for work completed in Phase I. The invoice is for $1300

Attach / Insert Gantt Chart and Other Project Documentation
NA

*(*enter text)*

For WisDOT Use Only	
Staff Receiving QPR J. Walejko	Date Received (m/d/yyyy) 1/8/2015
Staff Approving QPR Bill Oliva	Date Approved (m/d/yyyy) 1/27/2015